

Appl. No.: 10/606,318
TC/A.U.: 3711 Docket No.: C03-02
Reply to Office Action of August 12, 2004

REMARKS

Claims 1, 10-11, 13-14, 17, 25-26, 29, and 34, appear in this application for the Examiner's review and consideration.

Claims 1, 14, 17 and 29 have been amended to recite that the rear cavity insert is U-shaped and exerts a pre-load force over substantially the entire back wall of the front face and the wall of the sole cavity as pertains to claim 17.

Claims 2, 6, 8-9, 12, 16, 18-19, 21, 23-24, 28, 31-33, and 36, have been cancelled without prejudice to Applicants' right to file one or more continuing applications directed to any subject matter not presently claimed.

No new matter has been added by these amendments.

SUMMARY OF THE PRESENT INVENTION

Golf club irons are constantly striving to create clubs that are more forgiving, and with higher Coefficient of Restitution (COR) values. More forgiving usually means larger front faces with larger sweet zone, and inherently to accomplish this means thinner front faces and more spring in the face for increased COR.

The present invention is related to a golf club head that employs a U-shaped rear cavity insert for the purpose of supporting a very thin front face, and as an added feature the insert is pre-loaded to be biased against substantially the entire back wall of the front face. Therefore the entire front face is supported by a pre-loaded insert. The insert itself is preferably of a lightweight material, as reducing weight is a major goal. It is to be appreciated that a lightweight insert backing the front face is certainly not patentable, but the Applicants' believe that having a pre-loaded insert supporting the front face and surface of the sole cavity is unique.

Rejection Over U.S. Patent Application to Fagot

Claims 1 and 12 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Application Publication No. 2003/0190975 to Fagot. Fagot is generally

Appl. No.: 10/606,318
TC/A.U.: 3711 Docket No.: C03-02
Reply to Office Action of August 12, 2004

directed to a club head having an elastic leaf placing a preload against a point on the back wall of the striking face. The point may be several points, but the metal leaf claimed by Fagot is placed under tension for the purpose of affecting the Coefficient of Restitution (COR) of the club head and not to support a thin front face. Therefore, Fagot, as it is seen in the Figs. 2, 3, and 6, only needs to make a very small contact with the back wall in the area of the "sweet spot" of the impact face.

Claim 1 has been amended to more clearly state the object of the Applicants' invention. Claims 2 and 6 have been cancelled and their limitations incorporated into claim 1. The insert of the present invention is U-shaped and the force of the insert is juxtaposed against the entire back surface of the front face. The reasoning for this is described in the Background of the Invention, page 1, line 27 to page 2, line 3, and on page 2, lines 15 to 21, wherein it is discussed that present day clubs in seeking to increase COR often create clubs with very thin face thickness. This causes a problem with strength of the face and that is why the insert of the present invention covers the entire back wall of the impact face, and not just a point or even several points.

For claims to be rejected under 35 U.S.C. § 102(e), each and every element as set forth in the claims of the present invention must be found, either expressively or inherently, in a single prior art reference. Applicants respectfully submit that Fagot does not disclose all the elements of the claimed invention, especially as it relates to the U-shape design wherein the insert exerts a force on substantially the entire front face and is juxtaposed against the entire back wall of the front face. Claim 12 has been cancelled making the angle of the bend a moot argument.

Accordingly, independent claim 1 are believed to be in condition for allowance for at least the reasons set forth above. As such, Applicants respectfully request that the rejection under 35 U.S.C. § 102(e) be reconsidered and withdrawn.

Rejection Over Fagot In View of Obviousness

Claims 2 and 13-14 were rejected under 35 U.S.C. § 103(a) as being obvious over Fagot.

Claim 2 has been cancelled and the limitation incorporated into claim 1. The claim cites that the insert of the present invention is juxtaposed against substantially the entire

Appl. No.: 10/606,318
TC/A.U.: 3711 Docket No.: C03-02
Reply to Office Action of August 12, 2004

back surface of the front face. The Examiner suggests that it would have been obvious to modify the head of Fagot to juxtapose the leaf spring of Fagot against the entire back surface of the front face. The Applicants must respectfully disagree with the Examiner, and ask how would Fagot with a leaf spring cover the entire back surface of the front face? If this is obvious, then prior art should be produced that would suggest to Fagot the need to support the entire back surface. The Examiner cites paragraphs [0044] and [0046] in the Fagot Publication to suggest that the spring leaf of Fagot may have several points of contact. Several points of contact will not be equivalent of the present invention. The present invention is not just concerned with providing several points of pre-loaded contact for COR purposes, but rather the present invention teaches structural support for a very thin front face. Fagot is not concerned with supporting a thin front face and that is why he utilizes a leaf spring and not an insert that covers the entire back surface of the front face.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation to modify the reference or combine the teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must be found in the prior art, not in Applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 493, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

The obviousness assumption as use herein fails to cure the deficiencies of Fagot. There is no motivation to modify Fagot because Fagot is not concerned with providing support for a thin front face.

The rejection under 35 U.S.C. § 103(a) is believed to have been overcome for at least the above reasons. Applicants respectfully request reconsideration and withdrawal thereof.

Rejection Over Fagot In View of Schmidt or Helmstetter

Claims 6, 17, 18, and 21, were rejected under 35 U.S.C. § 103(a) as being obvious over Fagot in view of U.S. Patent No. 5,588,922 to Schmidt et al. or U.S. Patent No. 6,623,374 to Helmstetter et al. It is conceded by the Applicants that these references

Appl. No.: 10/606,318
TC/A.U.: 3711 Docket No.: C03-02
Reply to Office Action of August 12, 2004

show golf clubs that have a sole recess. But, they do not teach a pre-stressed insert in the sole recess and neither does Fagot.

Claim 6 has been cancelled. Claims 18 and 21 have been cancelled and incorporated into amended claim 17. Fig. 2 of the present invention shows the elected species. It teaches of a U-shaped insert that is bent within the sole recess 29 and exerts a force against substantially the entire front face. In addition to the insert being juxtaposed against the front face it is also juxtaposed against the top surface of the sole. Fagot does not teach of a pre-loaded insert juxtaposed against the entire top surface within the sole cavity, or the entire front face, and Fagot specifically cites screwing or welding one end of a leaf spring to the sole. There is no mention in Fagot, Schmidt, or Helmstetter of covering the entire sole recess surface with such an insert. In such a crowded art as this, certainly there would be some prior art that suggests the Applicants' invention. Again, the teaching or suggestion to make the claimed combination and the reasonable expectation of success must be found in the prior art, not in Applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 493, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991)

The rejection of claim 17 under 35 U.S.C. § 103(a) is believed to have been overcome for at least the above reasons. Moreover, the remaining claims 18 and 21 depend from claim 17 as discussed above and add additional features. These claims are believed to be patentable for the totality of the claimed inventions therein and by virtue of their dependency on an allowable independent claim.

Applicants respectfully request reconsideration and withdrawal thereof of this rejection.

Rejection Over Fagot In View of Cochran

Claims 8-9, and 16, were rejected under 35 U.S.C. § 103(a) as being obvious over Fagot in view of Cochran. Claims 8, 9, and 16 have been cancelled therein making this rejection moot.

Rejection Over Fagot In View of Iwata

Claim 10 was rejected under 35 U.S.C. § 103(a) as being obvious over Fagot in view of Iwata. Claim 10 depends from claim 17, whose patentability is discussed above,

Appl. No.: 10/606,318
TC/A.U.: 3711 Docket No.: C03-02
Reply to Office Action of August 12, 2004

and claim 10 adds additional features. Claim 10 is believed to be patentable for the totality of the claimed invention therein and by virtue of its dependency on an allowable independent claim.

Applicants respectfully request reconsideration and withdrawal thereof of this rejection.

Rejection Over Fagot In View of Yamada

Claim 11 was rejected under 35 U.S.C. § 103(a) as being obvious over Fagot in view of Yamada. Claim 11 depends from claim 17, whose patentability was discussed above, and claim 11 adds additional features. Claim 11 is believed to be patentable for the totality of the claimed invention therein and by virtue of its dependency on an allowable independent claim.

Applicants respectfully request reconsideration and withdrawal thereof of this rejection.

Rejection Over Fagot In View of Schmidt or Helmstetter and Cochran

Claims 23-24, and 28, were rejected under 35 U.S.C. § 103(a) as being obvious over Fagot in view of Schmidt or Helmstetter and further in view of Cochran. Claims 23, 24, and 28, have been cancelled therein making this rejection moot.

Rejection Over Fagot In View of Schmidt or Helmstetter and further in view of Iwata

Claim 25 is rejected under 35 U.S.C. § 103(a) as being obvious over Fagot in view of Schmidt or Helmstetter and further in view of Iwata. Claim 25 depends from claim 17, whose patentability is discussed above, and claim 25 adds additional features. Claim 25 is believed to be patentable for the totality of the claimed invention therein and by virtue of its dependency on an allowable independent claim.

Applicants respectfully request reconsideration and withdrawal thereof of this rejection.

Appl. No.: 10/606,318
TC/A.U.: 3711 Docket No.: C03-02
Reply to Office Action of August 12, 2004

Rejection Over Fagot In View of Schmidt or Helmstetter and Yamada

Claim 26 is rejected under 35 U.S.C. § 103(a) as being obvious over Fagot in view of Schmidt or Helmstetter and in further view of Yamada. Claim 26 depends from claim 17, whose patentability as previously mentioned is discussed above, and claim 26 adds additional features. Claim 26 is believed to be patentable for the totality of the claimed invention therein and by virtue of its dependency on an allowable independent claim.

Applicants respectfully request reconsideration and withdrawal thereof of this rejection.

Rejection Over Fagot In View of Helmstetter

Claims 29, 31-32 and 36, are rejected under 35 U.S.C. § 103(a) as being obvious over Fagot in view of Helmstetter.

Claims 31-32 and 36 have been cancelled making moot the argument relative to these claims. Claim 29 applies to a set of golf club irons and the claim has been amended as per claim 17. The arguments made in the rejection of claim 17 would apply herein.

Since claim 17 is believed to be now allowable, Applicants respectfully request reconsideration and withdrawal thereof of this rejection.

Rejection Over Fagot In View of Helmstetter and further in view of Iwata

Claim 33 is rejected under 35 U.S.C. § 103(a) as being obvious over Fagot in view of Helmstetter and further in view of Iwata. Claim 33 has been cancelled making this rejection moot.

Rejection Over Fagot In View of Helmstetter and further in view of Yamada

Claim 34 is rejected under 35 U.S.C. § 103(a) as being obvious over Fagot in view of Helmstetter and further in view of Yamada. Claim 34 depends from claim 29, whose patentability as previously mentioned is discussed above, and claim 34 adds additional features. Claim 34 is believed to be patentable for the totality of the claimed invention therein and by virtue of its dependency on an allowable independent claim.

Appl. No.: 10/606,318
TC/A.U.: 3711 Docket No.: C03-02
Reply to Office Action of August 12, 2004

Applicants respectfully request reconsideration and withdrawal thereof of this rejection.

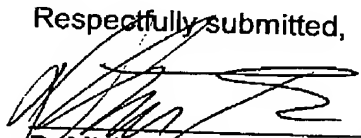
Conclusion

Based on the remarks set forth above, Applicants believe that all of the rejections have been overcome and the claims of the subject application are in condition for allowance. Should the Examiner have any further concerns or believe that a discussion with the Applicants' agent would further the prosecution of this application, the Examiner is encouraged to call the agent at the number below.

No fee is believed to be due for this submission. However, should any required fees be due, please charge them to Acushnet Company Deposit Account No. 502309.

9/24/04
Date

Respectfully submitted,


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